

**Amendments to the Claims**

Please amend Claims 12, 13, 17 and 19. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

1-11. (Canceled)

12. (Currently amended) Purified human cartilage oligomeric matrix protein in a conformation which ~~digests~~ can be cleaved by trypsin into ~~bands~~ fragments of 50 kDa and 55 kDa ~~when cleaved by trypsin~~.

13. (Currently amended) Purified human cartilage oligomeric matrix protein in a conformation which ~~digests~~ can be cleaved by trypsin into ~~bands~~ fragments of 62 kDa and 67 kDa ~~when cleaved by trypsin~~.

14-16. (Canceled)

17. (Currently amended) An ~~ELISA~~ enzyme-linked immunosorbent assay kit comprising human cartilage oligomeric matrix protein prepared by the method comprising:

- a) introducing DNA encoding human cartilage oligomeric matrix protein into cells, thereby producing cells expressing human cartilage oligomeric matrix protein;
- b) culturing the cells in a culture medium under conditions suitable for expressing the human cartilage oligomeric matrix protein, thereby producing expressed human cartilage oligomeric matrix protein; and
- c) purifying the human cartilage oligomeric matrix protein in the presence of calcium.

18 (Canceled)

19. (Currently amended) An ~~ELISA~~ enzyme-linked immunosorbent assay kit comprising the human cartilage oligomeric matrix protein (hCOMP) produced by the method comprising:

- a) obtaining DNA encoding full length hCOMP;
- b) introducing the DNA into cells, thereby producing cells expressing hCOMP;
- c) culturing the cells in a culture medium under conditions suitable for expressing the hCOMP, thereby producing expressed hCOMP; and
- d) purifying the hCOMP in the presence of calcium.

20-37 (Canceled)

38. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, and further comprising chondrocytes or mesenchymal stem cells.

39. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is bound to a differentiation agent.

40. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel and further comprising chondroitin sulfate proteoglycans.

41. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is human cartilage oligomeric matrix protein purified in a calcium-replete environment.
42. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the biological matrix comprises type I collagen gel or type II collagen gel, and wherein the matrix further comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers and porous polylactic acid.

43-90 (Canceled)

91. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid and type I collagen gel.